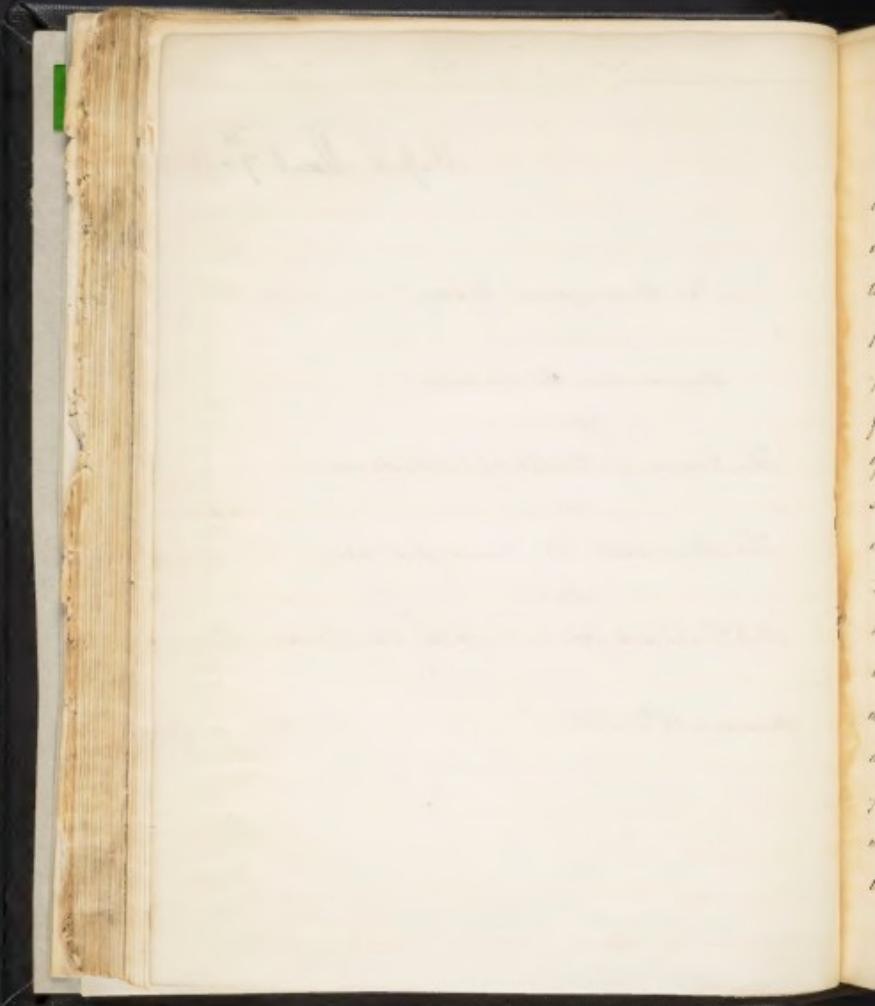


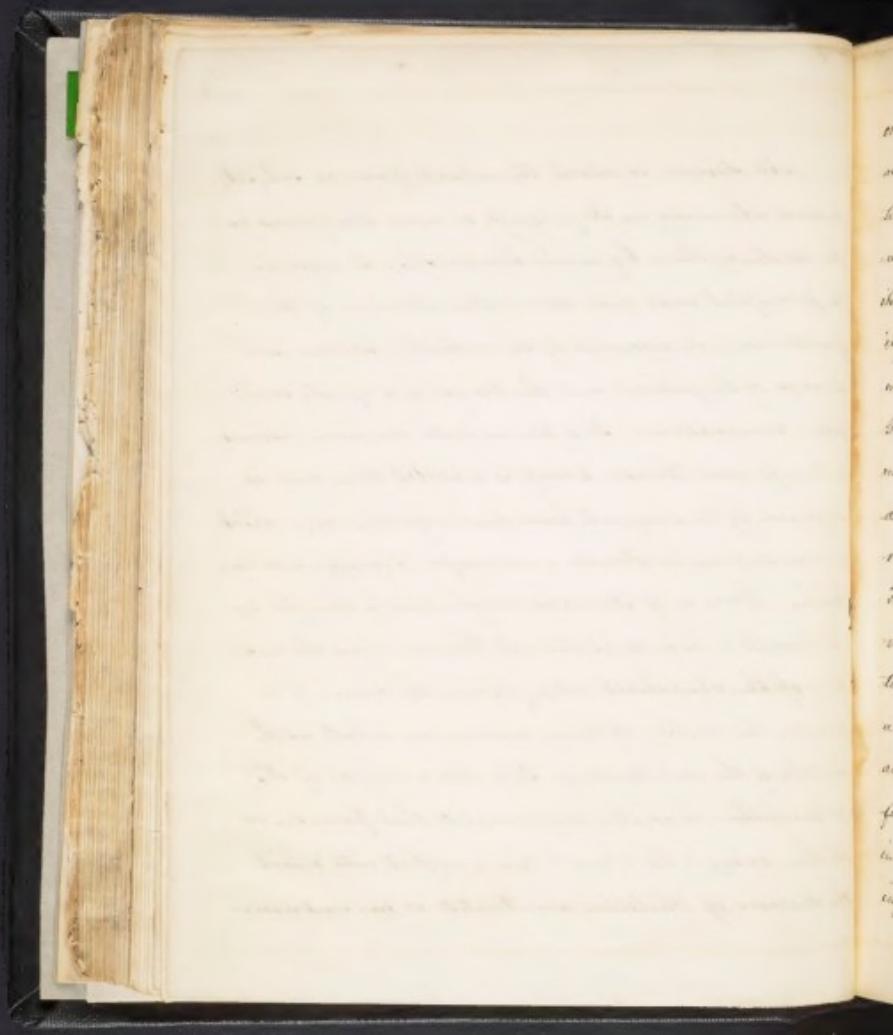
Dated March 7<sup>th</sup> 1828

An Inaugural Elocution  
on  
Synanthes Trachealis.  
for  
the Degree of Doctor of Medicine  
in  
The University of Pennsylvania.  
to  
A. J. DeRobertis Junr. of North Carolina.

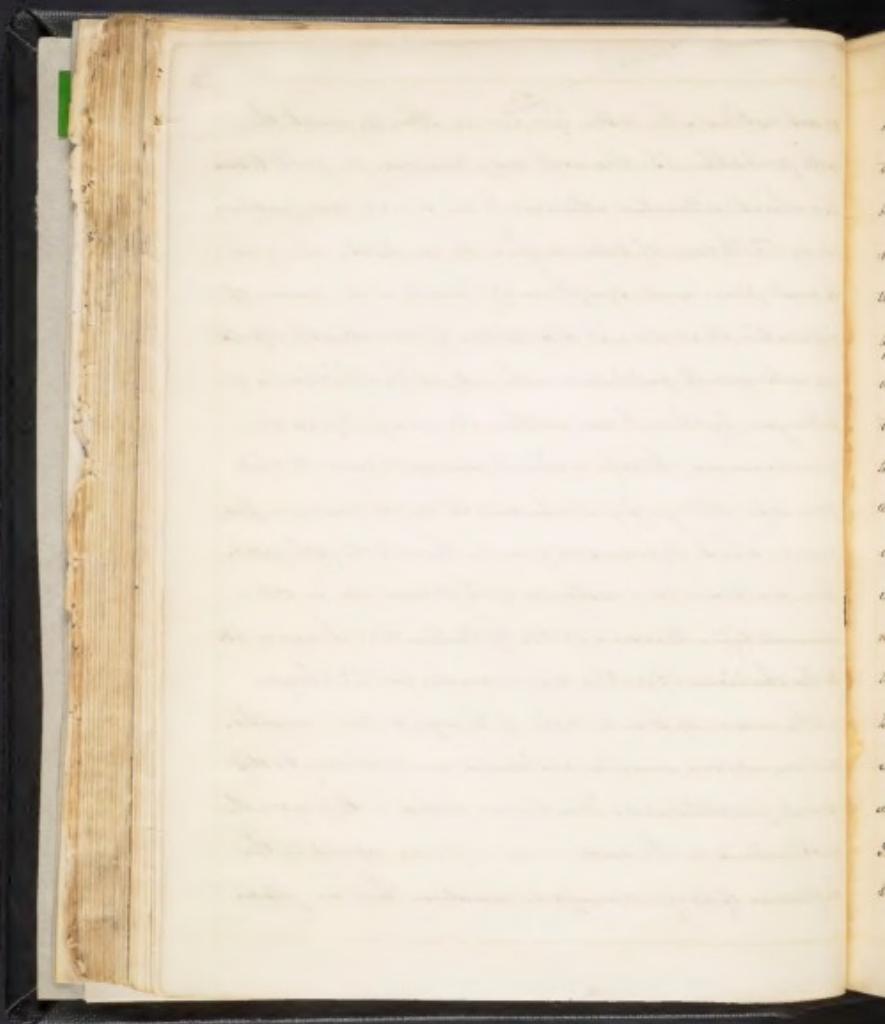
January 10<sup>th</sup> 1828.



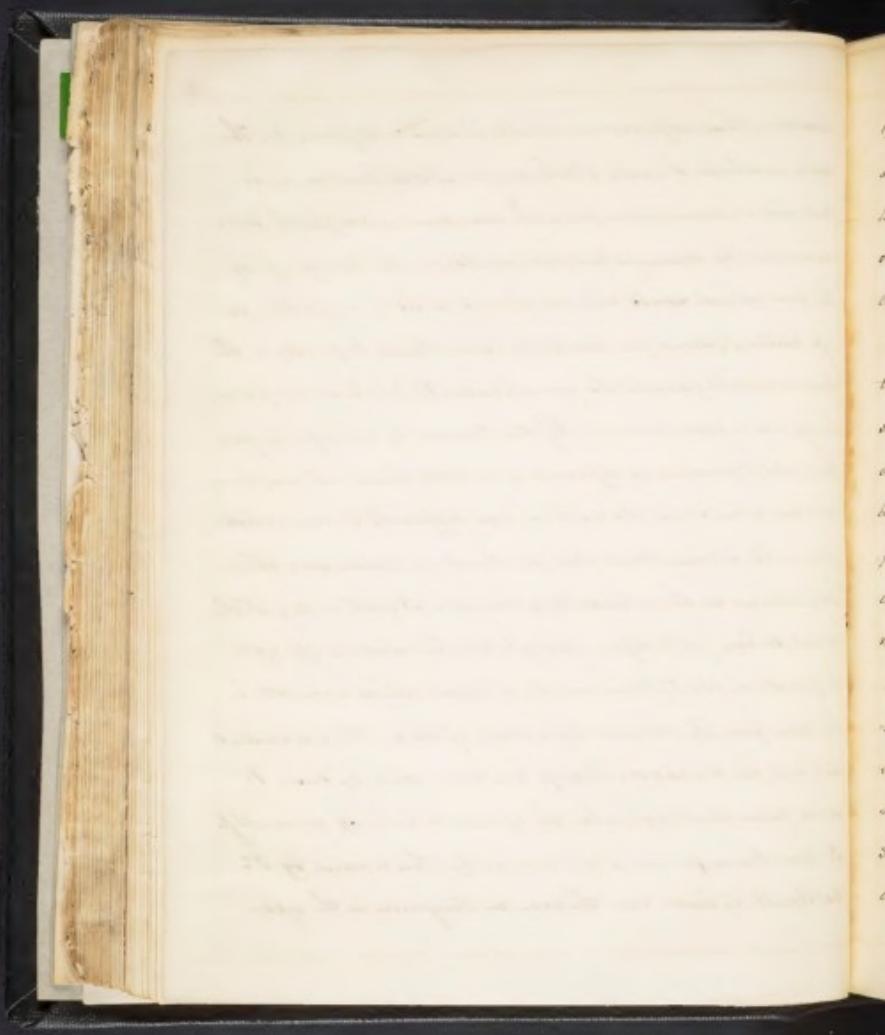
No disease to which the infant frame is subject, is more alarming in its progress, or more dangerous in its tendency than Cynanche Trachealis. It requires the promptest and most unremitting attention of the practitioner, on account of the evidently extreme sufferings of the patient and the danger of a speedy and fatal termination. It is known by the common names of Croup and Hoives. Croup is a Scotch term, and is supposed by Dr Shewell to have been originally soup which is derived from the French word roupie signifying a croup. Hoives is of American origin, and is thought by Dr Hornebeck to be a corruption of Heaves from the heaving of the chest which takes place in the course of the disease. The history of Croup commences as late as the middle of the last Century. It is still a subject of dispute whether it existed antecedent to that period, or whether, owing to the almost entire neglect with which the diseases of Children were treated it was unknown.



or not notice. The latter opinion is, I think, much the most probable. Be this as it may however, the first treatise which attracted attention to the disease was published by Dr. Home of Edinburgh in the year 1765; who gave the most prominent symptoms applied to it the name of *Asphyxiation Stridula*: A dissertation of considerable repute was subsequently published on the subject by Michaelis of Solingen, by whom it was called *Anusina polyposa vel membranacea*. Croup is almost entirely confined to children before the age of puberty and the most common period in which it occurs, is from the third to the fifth year. There are some rare instances of its occurrence in advanced life. It was asserted by Cullen that it never attacks children before they are weaned, but Dr. Cheyne relates a case of it in a child of the age of three months. and numerous similar instances are recorded by different practitioners. This disease occurs most frequently in situations on the seashore, or in places exposed to the influence of large swamps or marshes. There are places

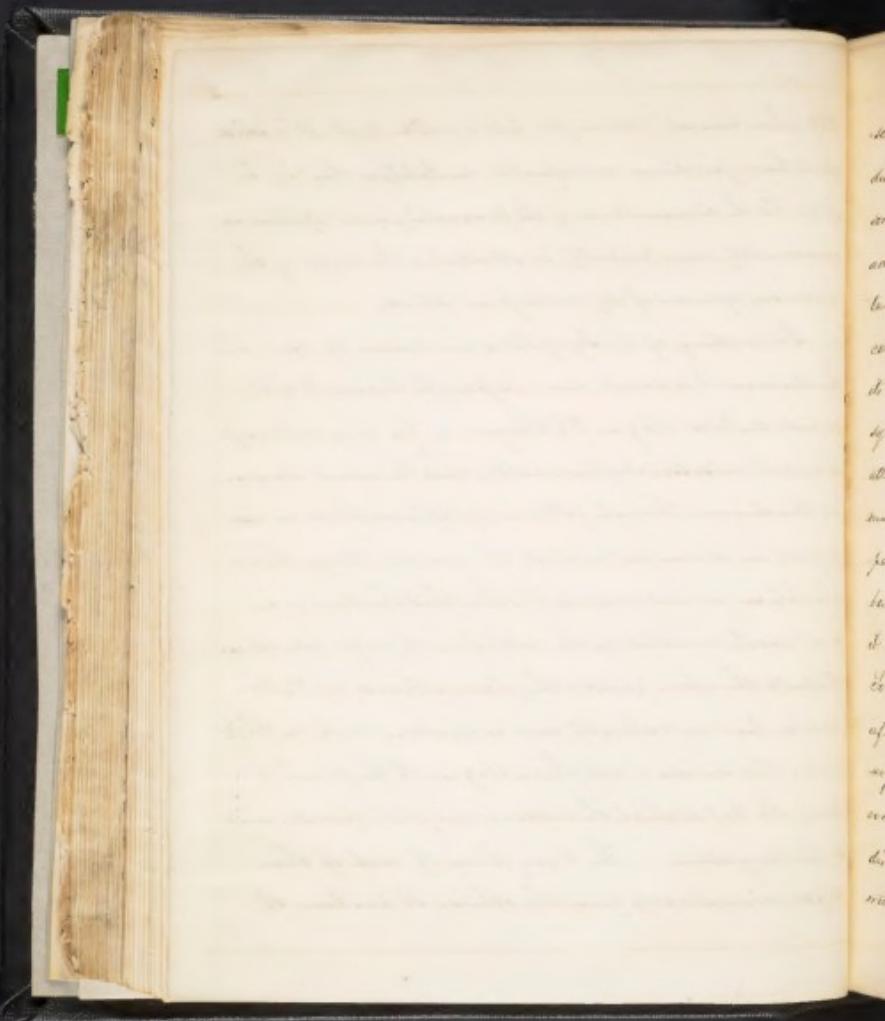


however, thus exposed, in which it does not prevail. The town in which I reside, (Wilmington, North Carolina) is but six or seven miles from the sea and is completely surrounded by swamps and rice fields; and the dampness of the air which exists almost always exists to a greater or less extent, seems particularly calculated to produce the disease or to favour its prevalence. But it is of comparatively rare occurrence. Of the causes of Croup, by far the most common is exposure to a cold damp atmosphere and hence in some places, it is even difficult to raise children. It is sometimes also produced by worms and other irritations in the alimentary canal. A full indigestible meal, taken just before going to bed is exceedingly apt to produce it. Dr. Gale mentions a case which occurred in his own family, caused by a drop of wine getting accidentally into the trachea. Croup has been said by some to arise from contagion, but the opinion is entirely groundless. It sometimes prevails epidemically. This is said by Dr. Goldsmith to have been the case in Virginia in the year



1799 when General Washington fell a victim to it. It is said also to have produced considerable mortality in this City in 1809. To the circumstance of its prevailing as an epidemic occasionally, may probably be attributed the origin of the erroneous opinion of its contagious nature.

In treatise of the symptoms and means of cure in this disease, it is usual and necessary to divide it into several distinct stages. Dr. Cheyne, in his *Essay on Consumption* divides it into the Inflammatory and Puerulent stages, but this division though followed by other authors, is incomplete, as it does not include the forming stage. This is a highly important one, as it is then that the disease is most easily arrested by the exhibition of proper remedies. I shall therefore pursue the plan followed by Dr. Doderer in his very valuable and interesting work on Children. He divides it into three stages - 1<sup>o</sup> the forming stage - 2<sup>o</sup> that in which the disease is completely formed, and 3<sup>o</sup> the Convalescence. The symptoms of each of these differ considerably from the others. It has been ob-



served that in a majority of instances, the patient is dull and heavy and is little disposed for remonstrance for some days previous to the attack, and that the disease advances with the ordinary symptoms of a common cold. It does, however, however come on without any collateral symptoms and the child frequently retains its usual activity until the moment of attack. The symptom which usually first attracts attention is a cough attended by a peculiar ravenous sound, which is one of the most certain characteristics of Croup. It has been compared to a cawing or sounds within the wing of a bird, the striking of a bell in the belfry of an open and probably it does in many instances closely resemble each of them. In striking in the same however that the practitioner after hearing heard it once or twice cannot fail to recognise it. In this stage it attacks only the cough; the voice is not affected but there is at first little or no disturbance of the respiration, the skin is pale and cold without any sense of chilliness on the part of the pa-



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tient; no marks of inflammation are presented by the lungs, and the tenor of the affection is most natural. The duration of the first stage is very variable; it may continue for several days and on the application of some exciting cause be followed by the second, or the latter may supervene in a much shorter time. An aggravation of the above symptoms and the addition of others mark the approach of the second stage, and the disease becomes fully formed. The cough is very much increased in violence, and the paroxysms are longer and more violent. The respiration which is first attended only by the cough, is now distinctly perceived on any attempt of the patient to speak; the pulse is frequent; the face is much flushed; there is great difficulty of respiration which is increased by every attack of cough, an insupportable uneasiness, with rattlings, and the patient frequently rises in bed in hopes of diminish the distress. The disease now rapidly advances to the third or Congestive stage. The paroxysms of



cough becomes much more frequent and long continued,  
and are violent: - in extreme prostration, the difficulty  
of breathing is very much increased by the deficiency  
of blood to the lungs; the respiration is so great as  
to render every position intolerable, the head is thrown  
back and the patient gasps for air, the face now becomes  
blotched, or even pale and livid; the voice becomes  
hoarse and ringing and assumes a shrill & sonorous tone;  
the shoulders are elevated at each inspiration over the  
head & thumbs violently. The effects of this paroxysm of  
the heart may sometimes be distinctly seen upon the  
skin of the thorax, and even the bedclothes are occasion-  
ally elevated. Death generally takes place suddenly  
after an attack of cough, and sometimes insensibility  
comes slowness the scene; but it generally happens  
that the sufferings of the patient continue until the  
last moment. "The countenance," says Dr. Denev, at the  
conclusion of his description of the symptoms, "is  
anxious, big and expressive, the eyes become narrow

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more singly turbulent and distressing - they eloquently impress a relief which neither physician nor science can afford; and the poor sufferer infires with a lost full of supplication and anguish? When Croup terminates fatally, death is almost invariably produced by a mechanical obstruction of respiration. And this may be caused by the adhesions membrane which some authors suppose to have a active part - also presenting the entrance of air into the lungs, is by an accumulation of mucus in the trachea and bronchia, or by a spasmodic action of the muscles of the larynx or of the muscular stroke which enters into the composition of the tracheo-thorax. When the disease terminates favorably the inflammation is followed by resolution, the spasmodyc action ceases, and full respiration takes place.

The duration of an attack is various; it has been known to end fatally in twenty-four hours, and instances are recorded of its continuing for weeks. But it usually runs its course in from three to five days.

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In the early stage of scrofula, it may almost always be cured by the simple administration of copious re-medicines; but after it is somewhat advanced the progress is far less certain. The most favourable sign is a diminution of hardness exceeding the application of medicines. An expectation at the same time becomes less difficult. The human will, nevertheless be unavoidable of the system obtainable notwithstanding the action of remedies, and the symptoms continue to increase in violence. It arises with considerable and thriceings of the heart and said to be invariably fatal signs.

Post mortem examinations, prove the existence of inflammation in almost every case. The mucous membrane is not only affected but the muscular fibers of the larynx and trachea are implicated. The trachea and bronchia are frequently loaded with mucus or lymph mixed frequently with a fluid resembling pus, and occasionally a tough substance in the form of an membrane lining the inner surface of the tube. It permeates

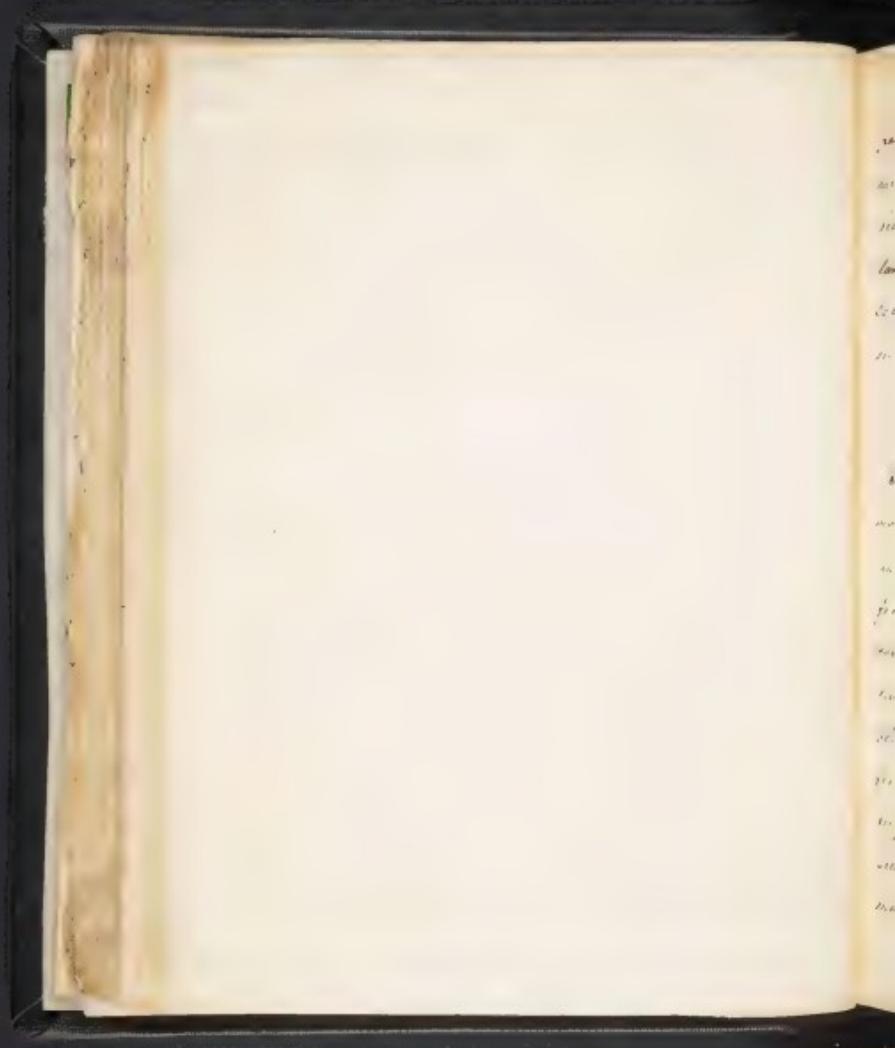


of the membrane has been denied by authors of the highest respectability, but having been it myself on one instance, I am of course bound to believe in its existence. If death takes place in the congestive stage, the lungs are found heavily engorged with blood.

The first object in the Treatment of Croup when in the former stage is to produce emesis, and the best article that can be used for this purpose is the Corn-  
flower Syrup of Equisetum or Boiss's Herb Syrup. By its combined emetic, cathartic, and diaphoretic properties, it cleanses the primary air, and equalizes the circulation. It is very highly recommended by the Professor of Materia Medica in this University, and from his experience in the management of this disease as well as from the uni-  
versal testimony of all who have used the remedy, there can be no doubt of its efficacy. In addition to this some stimulative liniment or a fomentation should be applied to the throat, and the patient carefully defended from cold. In the early stage when only cough and the



color which symptoms indicate they soon will easily  
fail to give relief. But if from neglect of remedies or  
from any other cause, the disease becomes settled & chronic,  
or if the practitioner, as is very frequently the case, is  
not called until this takes place, the treatment  
must be more active. An important object of great  
importance also is to induce vomiting, but it is striking  
in observation of this disease, that at its height, that  
it resists the action of an emetic sometimes with the most  
unfeeling obstinacy. It is therefore necessary to give  
the remedies in large doses, and by an auxiliary means  
to promote their operation. The most prompt and ac-  
tive emetic is a combination of pepper, with extract of  
antimony. The addition of a small quantity of calomel  
adds much to its efficacy. I have repeatedly seen very  
severe vomiting of this kind, prescribed by my father  
in several inflammatory affections of the throat and  
airways with the most decided advantage. To promote  
its operation the warm ball should be used and the



patient kept in it for fifteen or twenty minutes. This measure will fail to produce the desired effect and make it difficult to relieve the symptoms. But by far the most important remedy is Bloodletting and this should be employed so as to have a full and decided effect on the system as no doubt will result from it.

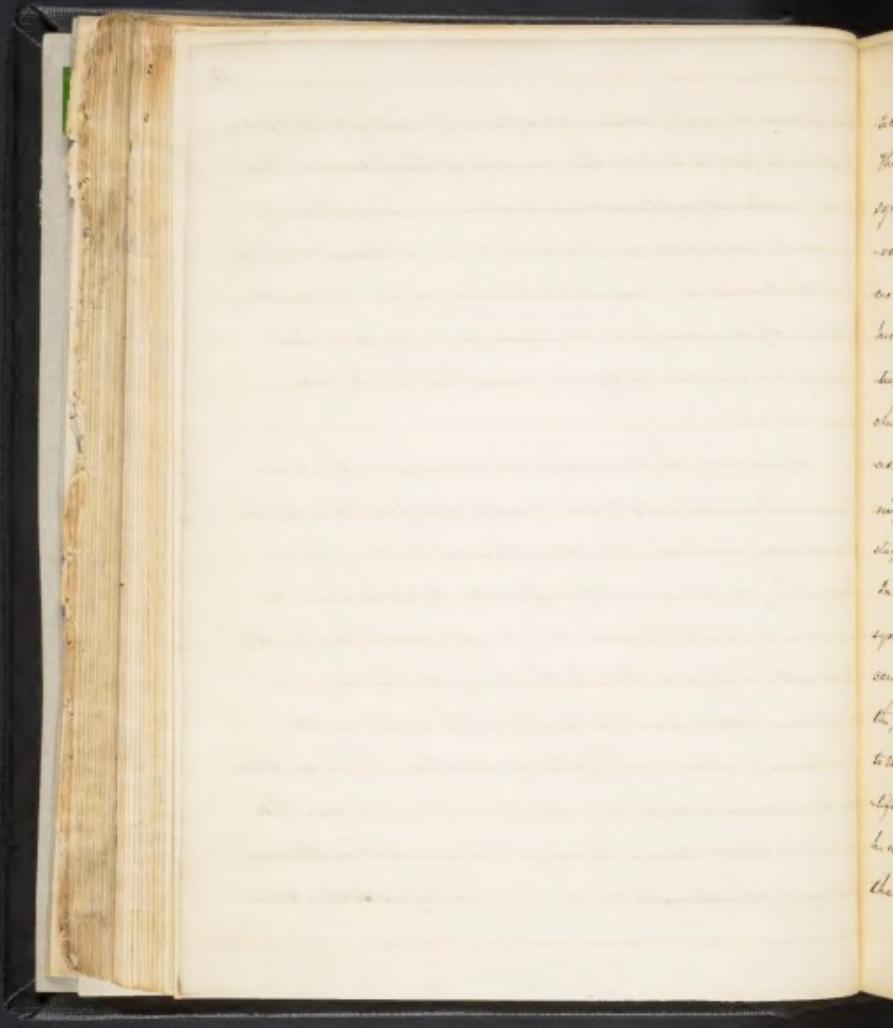
"A little bleeding is a dangerous thing,  
Blood free, or open not the vital springs."

It is truly surprising to what an extent this operation may be carried even in very young children. It is known to late the case of a child of the age of three or four years from whom he abstracted twenty five ounces of blood in the course of one hour. The child, although almost in a faint, recovers after the operation, recovered, yesterday, from a bad bleeding in aid of the canula is a very valuable remedy, and so they say, however far preferable are other means in such cases. They should always, if possible, be used, and not to the extent of the such. In the condition we may again resort, if necessary to an emetic. An opiate.



tion is now almost certain and thus vermefia will rarely fail to put a stop to the progress of the disease. The more violent symptoms being subdued a large dose of calomel may be given. By removing irritancy smalters from the bowels, it prevents the tendency of the disease to return. If any cough or uneasiness remains small doses of the compound syrup of squills will be found very useful.

If however, the disease is not cured and the inflammation extends to the minute ramifications of the bronchia, producing the symptoms of the Congestive Stage, the practice is widely different. If venesection is necessary at all it must be in small quantities, for so great is the determination to the lungs in this stage that a sudden abstraction of blood from the system will sometimes produce even fatal prostration. Topical bleeding by leeches or cups is a valuable substitute for the lancet in these cases. A large blister and other blistering applications to the chest are indispensable. Some-



ties and the warm bath will also be of great service.  
This may be followed by expectorant doses of the compound  
syrup before alluded to. But after the disease has ad-  
vanced to this stage, all our remedies are in many instan-  
ces ineffectual and the patient rapidly sinks. We must  
however, never abandon a patient for owing to the na-  
ture of the disease and to the great tenacity of life in  
children, recoveries frequently take place under circumstan-  
ces apparently hopeless. Much dispute has arisen concern-  
ing the propriety of the operation of bronchotomy in the last  
stage of Croup for the purpose of obstructing the membranes.  
In cases where all hope of recovery is abandoned and when the  
symptoms indicate the presence of the membranes I think this  
can be no reasonable objection to the operation. If the life of  
the patient is saved by it and the dying infant thus restored  
to the arms of its distressed parents, what a pleasing grat-  
ification will it afford the practitioner! and if it fails  
he will at least have the satisfaction of being conscious  
that he has discharged his duty.

